May 12, 2017

Mr. Robert Courtnage
Office of Chemical Safety and Pollution Prevention
Mail Code 7404T
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460-0001

Dear Mr. Courtnage:

Pursuant to your request, we are providing additional information related to the use of chrysotile asbestos by the ACC's Chlorine Chemistry Division chlor-alkali producer members.

Request:

How different are the other chlor-alkali plants nationwide in their processes with receiving, handling, manufacturing, using and disposing of the chrysotile asbestos diaphragms?

Response:

Although there may be slight differences between the practices at chlor-alkali plants, the handling, manufacturing, use, and disposal practices are governed by federal EPA and OSHA asbestos specific requirements:

- Occupational Safety & Health Administration (OSHA) Standard for Toxic and Hazardous Substances, Asbestos (29 CFR §1910.1001);
- National Emission Standards for Hazardous Air Pollutants (NESHAP), National Emission Standard for Asbestos (40 CFR §61.140); and
- Toxic Substances Control Act (TSCA), Asbestos (40 CFR §763), Asbestos Worker Protection (Subpart G) and Prohibition on the Manufacture, Importation, Processing, and Distribution in Commerce of Certain Asbestos-Containing Products; Labeling Requirements (Subpart F)

In addition, the chlor-alkali manufacturers are members of the Chlorine Institute (CI) and follow the CI Pamphlet 137 Guidelines for chrysotile asbestos handling (Attachment 1). Detailed examples of regulatory compliance can be found in Attachment 2.

Request:

Any additional data on the process of removing and disposing of the chrysotile asbestos that is pressure removed from the diaphragm screens.

Response:

Water generated from hydro blasting of spent chrysotile asbestos cell diaphragms - as well as all wash down water - is collected in a process sump. The sump is agitated to keep the diaphragm material in suspension. The water is then pumped to an agitated feed tank from which it is pumped to the filter press which is used to "dewater" the spent diaphragm. The pressure is monitored on the filter press feed line to prevent overflow. The de-watered solids are removed from the filter

press and placed in a "super sack" for offsite disposal. The filtrate from the filter press passes through a mesh screen prior to being discharged. All wastewater discharge must comply with Clean Water Act National Pollutant Discharge Elimination System (NPDES) permit requirements.

Detailed examples of wastewater filtration and disposal of materials after the filter has been pressure washed and removed from the diaphragm screens may be found in the following attachments:

- Representative Asbestos NPDES Operational Information (Attachment 3): Summarizes wastewater process and controls.
- Representative Process Flow Diagram of Water Filtration System (Attachment 4)

Request:

Any additional data on air monitoring at the facilities nationwide.

Response:

Air monitoring is conducted in accordance with EPA's asbestos NESHAP monitoring and recordkeeping requirements. The following documents provide additional information related to chrysotile asbestos handling operations implemented to comply with the applicable NESHAP standard controls:

- Representative Regulatory Compliance Controls (Attachment 2)
- Representative Asbestos Handling Process Flow Diagram (Attachment 5)
- Representative Asbestos Dust Collector Preventative Maintenance process for semiannual and annual inspections (Attachment 6)

Request:

Any additional employee health monitoring data

Response:

ACC submitted a summary to EPA on March 15, 2017. A representative sample of workplace monitoring data can be found in Attachment 7, which details individual sample results by task and date.

Request:

Any additional data on chrysotile asbestos analysis of caustic solution

Response:

Caustic produced in the diaphragm process is filtered to remove excess salt which will also collect any other solid contaminants. The salt is allowed to build up on the filters to remove ever finer particles. The collected salt is reintroduced into the process to increase the sodium and chlorine content of the salt solution.

CI has conducted sampling of the caustic produced from the chrysotile diaphragm process and found the levels of chrysotile asbestos to be well below the federal maximum contaminant level of 7 million fibers per liter (MFL).

I hope this additional information is helpful to you and your team. Please feel free to contact me if you have any questions about the enclosed materials or wish to discuss this information further.

Sincerely,

Judith Nordgren
Managing Director
Chlorine Chemistry Division

ATTACHMENT 1

Glove Box Controls

# of Facilities	Glove Box Exhaust	Control Method	Glove Box Room Exhaust	Control Method
4	The glove box is maintained under negative pressure with air drawn from the glove box by an air handling system. The exhaust from the air handling system is routed to either a bag house or pre-filter and High Efficiency Particulate Air (HEPA) filter system prior to discharge to atmosphere.	The air cleaning devices (bag house and HEPA filter systems) meet standards for manufacturing and design or efficiency criteria as specified in 40 CFR 61.144 (b)(2) and 40 CFR 61.152 (a)(1) or 40 CFR 61.152 (b)(2) respectively.	The glove box room is maintained under negative pressure. The air from the glove box room is also drawn by same air handling system as the glove box. The exhaust from the air handling system is routed to either a bag house or pre-filter and High Efficiency Particulate Air (HEPA) filter system prior to discharge to atmosphere.	The air cleaning devices (bag house and HEPA filter systems) meet standards for manufacturing and design or efficiency criteria as specified in 40 CFR 61.144 (b)(2) and 40 CFR 61.152 (a)(1) or 40 CFR 61.152 (b)(2) respectively.
1	The glove box is maintained under negative pressure with air drawn from the glove box by an air handling system. The exhaust from the air handling system is routed to a pre-filter and High Efficiency Particulate Air (HEPA) filter system prior to being recycled back into the glove box/clean room. No discharge to atmosphere.	The air cleaning device (HEPA filter system) discharge has an efficiency that meets the standards for manufacturing and efficiency as specified in 40 CFR 61.144 (b)(2) and 40 CFR 61.152 (b)(2).	The glove box room is maintained at a negative pressure. The air from the glove box room is drawn by same air handling system as the glove box routed through a pre-filter and High Efficiency Particulate Air (HEPA) filter system and returned back into the glove box/clean room. No discharge to atmosphere.	The air cleaning device (HEPA filter system) discharge has an efficiency that meets the standards for manufacturing and efficiency as specified in 40 CFR 61.144 (b)(2) and 40 CFR 61.152 (b)(2).
1	The glove box is maintained under negative pressure with air drawn from the glove box to an asbestos slurry mix tank by a compressor. The air from the compressor is exhausted to atmosphere through a water separator.	The discharge meets the standards for manufacturing in 40 CFR 61.144 (b)(1).	The air from the glove box room is drawn by an air handling system. The exhaust from the air handling system is routed to a pre-filter and High Efficiency Particulate Air (HEPA) filter system and returned back into the glove box room. No discharge to atmosphere.	The air cleaning device (HEPA filter system) discharge has an efficiency that meets the standards for manufacturing and efficiency as specified in 40 CFR 61.144 (b)(2) and 40 CFR 61.152 (b)(2).

ATTACHMENT 2

Asbestos NPDES Operational Information

Facility	Wastewater from the hydroblasting prior to discharge (Process flow, equipment involved, typical flow rate etc.)	Control Equipment Information (Type, Size and dimensions, monitoring, Efficiency)	Inspection and Maintenance Information (how often are they inspected, replacement frequency)	Wastewater discharged per NPDES Permit
Facility 1	Water generated from hydro blasting of spent asbestos cell diaphragms as well as all wash down water is collected in a 29,845-gallon process sump via trenches . The process sump is constructed of concrete and is 7-feet deep x 15 -feet wide x 38 -feet long and consists of two sections (north and south) separated by an overflow weir. The south sump is equipped with three agitators and a chopper pump. The chopper pump reduces the size of the solids while the agitators keeps the diaphragm material in suspension. In case of a high level, the south sump can overflow to the north sump. Feed pumps from both sumps can transfer the material to the filter press . The feed pumps are air-powered double diaphragm pumps which use 90 SCFM at 80 psig of dry air while pu mping 100 gpm at 30 psig of liquid to start and 15 SCFM at 100 psig of air while pumping 10 gpm at 98 psig of liquid as the filter press become full with filter cake. The filter press with 40 plates with 38 chambers is equipped with polypropylene filter elements which are designed for efficient separation of solid from liquid . When the filter cycle is complete and the chambers are completely filled with solids, a hydraulic ram is retracted and each filter element is separated individually to remove the “de-watered” solids between the plates into a super sack for offsite disposal. The filtrate from the filter press passes through one of two sets of filter press effluent filters. The filter vessel s are approximately 2’2 ¾” tall, 8 7/8” in diameter, and are constructed of stainless steel. The filter comes equipped with a	Filter Press Make: Aqua Care Filtration and Separation Dynamics Model: EP800/38-38/45 Capacity: Volume of 23 ft^3 (expandable to 27 ft^3) and a net filter area of 412 ft^2 (expandable to 487 ft^2). Design Pressure: 100 psig Filter Press Media Make: P olypropylene, filter cloth type is Madison-99F. Filter Press Effluent Filters Make: Hayward Industrial Products, Inc. Design Pressure: 150 psi Filter Media : 100 micron polypropylene bags	100 Micron Filters bags are replaced based on differential pressure across the filters. Filter cloths are replaced as needed on the filter press.	The wastewater associated with this operation is routed to the plant effluent system for discharge through a NPDES permitted Outfall. Sampling: Two samples of NPDES outfall were collected on October 14, 2002 and on July 1 through July 2, 2009 to support a permit renewal application. These samples were analyzed for asbestos using EPA test method EPA 100.2 . Sample analytical results of the outfall discharge were 1.05 MFL and Non Detect , respectively; well below the Federal Safe Drinking Water Act Standard of 7 MFL (Fibers >10 micrometers).

	316 Stainless Steel restrainer basket. These filters are intended to remove asbestos fibers from the filter effluent before it is pumped to the plant permitted outfall. Each filter set consists of two individual filters with 100 micron filters.			
Facility 2	Water generated from hydro blasting of spent asbestos cell diaphragms as well as all wash down water is collected in two 13,000-gallon process sumps via trenches. The process sumps (2A and 2B) are separated by an overflow weir. The sumps are equipped with agitators which keeps the diaphragm material in suspension. This suspended material is then pumped to a filter press used to "dewater" the spent diaphragm. The de-watered solids are removed from the filter press plates and placed in a super sack for offsite disposal. The filtrate from the filter press passes through one of two sets of filter press effluent filters. The filters have stainless steel housings with a design pressure of 150 psig, maximum flow of 100 gallons per minute. Each filter set consists of two individual 100 micron filters. The discharge from these filters is comingled with other wastewaters prior to discharge through a NPDES permitted outfall.	Filter Press Make: Durco Model: EP800/25-20/29 Filter Press Effluent Filters Make: Parker Model: G2P100-Q Design Pressure: 150 psi Filter Media : 100 micron polypropylene bags	Effluent filters bags are replaced based on differential pressure across the filters. The filter press itself is subject to a Preventative Maintenance every 4 months. The filter press fabric is inspected after each press operation and subsequent cleaning. The cloth fabric media itself is not subject to a specific PM but is replaced as needed.	The wastewater associated with this operations is routed to the plant effluent system for discharge through a NPDES permitted Outfall.
Facility 3	Water generated from hydro blasting of spent asbestos cell diaphragms as well as all wash down water is collected in a 12,500-gallon process sump via trenches. The sump is equipped with an agitator which keeps the diaphragm material in suspension. This suspended material is then pumped to a Hydro sieve and screw press filter which is used to "dewater" the spent diaphragm. The de-watered solids removed via screw press are placed in a super sack for offsite disposal. The liquid is routed to another 39,500-gallon sump. There is an overflow weir between the two sumps in case of a high level. The suspended material in the second sump is then pumped to a filter press filter which is used to "dewater" any	Hydro Sieve Make: The Bauer Bros. Co. Model: D554005 MK-3 Capacity: 900 gpm Filter Press Make: Eimco Shriver Model: M800FB Filter Press Media Make: Micronics Model: 800 mm Eimco intermediate polypropylene cloth with a welded HPR and latex edge seal	Filter press is cleaned when the inlet pressure reaches 90 PSI. Sight glass between the filter press is monitored by operators for any visible fibers. No maintenance PMs or inspections associated with the filter press. Sock filters are inspected daily by operators and to be changed out when delta P reaches 10 psi across the filter.	The wastewater associated with this operation is routed to the plant effluent system for discharge through a NPDES permitted Outfall belonging to a neighboring co-located facility.

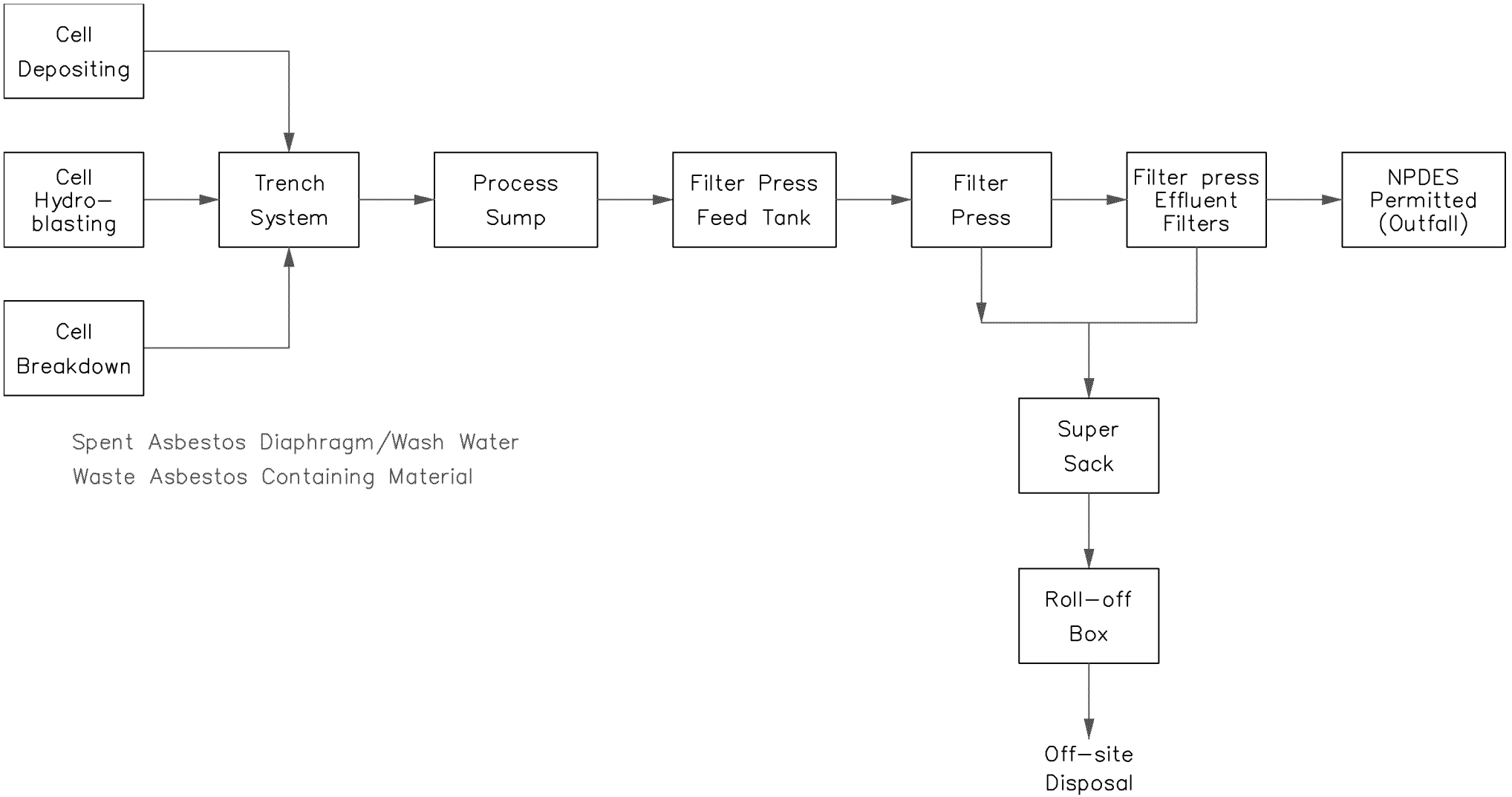
	remaining solids which are placed in a super sack for offsite disposal . The filtrate from the filter press passes through one of two sets offilter press effluent filter in series. Each filter set consists of two individual filters with different filter sizes; one 100-micron and one 10 -micron filter. The discharge from these filters is comingled with other wastewaters prior to discharge through a NPDES permitted outfall.	Filter Press Effluent Filters Make: Knight Oil Model: PE10P2F (10 micron); PE100P2F (100 micron) Polyester Filters are 32" long and have 99% Absolute efficiency		
Facility 4	Water generated from hydro blasting of spent asbestos cell diaphragms as well as all wash down water is collected in a 1 ,500 gallon agitated process sump located inside the cell renewal building via tr enches and routed to a 12 -foot diameter, 10.5-foot tall filter press feed tank. The filter press feed tank with a capacity of approximately 7,000 gallons is equipped with an agitator which keeps the diaphragm material in suspension. This s uspended materi al is then pumped to a filter press. The filter press is used to "dewater" the spent diaphragm. The filter press is equipped with a pressure gauge. When the gauge reaches 60 psi this indicates that the press is full. The de-watered solids are removed from the filter press and placed in a super sack for offsite disposal. The filtrate from the filter press passes through a mesh screen prior to being discharged to the sanitary sewer to the local POTW. The presence of large amounts diaphragm material on the mesh screen would be indicative of a problem with the filter press screens.	Filter Press Feed Tank: Steel, 12' OD, 10.5' Tall. Has an agitator, level monitoring, and level interlocks. Sump Pump: 360 GPM, 30ft TDH, 7HP, 460V, 1725 RPM. Filter Press Pumps (2): 40 GPM, 135 TDH, air powered (75 PSIG) diaphragm pumps. Filter Press Make: Duriron Model: QP800. 22.6 C.F., Design Pressure 100PSI. Filter Press Media Make: Durco Model: 873-800P pH: Monitored and maintained between 5 and 10.5	Filter press feed tank is inspected externally every 5 years and internally every 10 years. Filter press inspected externally every 3 years and internally every 6 years. Pumps inspected and replaced as needed. The filter press fabric is inspected visually for tears after each press operation and subsequent cleaning. Individual cloths are replaced as necessary.	The wastewater associated with this operation is routed to the plant effluent system for discharge through a permitted outfall to a POTW.
Facility 5	Water generated from hydro blasting of spent asbestos cell diaphragms as well as all wash down water is collected in a 12,000-gallon process sump via trenches. The sump is equipped with two (2) agitators which keeps the diaphragm material in suspension. This suspended material is then pumped to an 18,000 -gallon filter press feed tank equipped with an agitator. Feed pumps	Filter Press Make: Industrial Filter / Sperry Model: 1000 EHCP/AP Capacity: 35 cubic feet (max.) Size 40" plates, 39 chambers with 1 ¼" cake Cloth are fabricated filter polypropylene multifilament w/latex edges	Filter Press: The filter press itself is subject to a Preventative Maintenance every 6 months, which includes the hydraulic system, the motor and hoses. The filter press fabric is inspected after each press operation and subsequent cleaning (daily or every other day). Operates only 4 days per	The wastewater associated with this operation is routed to the plant effluent system for discharge through a NPDES permitted Outfall.

	transfer the diaphragm material from the filter press feed tank to a recessed plate filter press which is used to "dewater" the spent diaphragm. The maximum flow rate of the pumps to the filter press is approximately 160 gallons per minute, however flow rates from the feed tank to the filter press vary from 50 – 160 gallons per minute, depending upon the amount of diaphra gm material on the press. The de-watered solids are removed from the filter press plates and placed in a super sack for offsite disposal when the flow rate to the filter press drops to 50 gallons per minute. The filter press produces approximately 1.3 cubic yards of cake. The target flow rate of the filtrate leaving the filter press is approximately 15 gallons per minute. The filtrate from the filter press drains to two secondary cartridge filters that operate in parallel, prior to discharging to the plant effluent system for discharge through a NPDES permitted Outfall.	Filter Press Media Make: Fabricated Filters, Inc. Model: 1P1 Multifilament Cloth with Latex Edges Secondary Cartridge Filter Carbon Steel, Halar-Lined Bag Housing Make: Fabricated Filters, Inc. Model: HE-CST-100L-150A Filter Media Make: R-P Products Model: 100-series 8 micron bag filter with an efficiency rating of > 90%.	week. Individual cloths are replaced as necessary. The cloth fabric media itself is not subject to a specific PM but is generally replaced entirely every two years. Secondary Cartridge Filter: The secondary filters (2) are not monitored, however they are changed out after every other filter press operation. The presence of diaphragm material on the secondary filters would be indicative of a problem with the filter press screens.	
Facility 6	Water generated from hydro blasting of spent asbestos cell diaphragms as well as all wash down water is collected in a process sump located inside the cell renewal building via trenches and routed to a filter press feed tank. The filter press feed tank with a 12-foot diameter has a capacity of approximately 12,650 gallons. Feed pumps transfer the diaphragm material from the filter press feed tank to a filter press. The filter press is used to "dewater" the spent diaphragm. Pressure is monitored on the filter press feed line to provide an indication on when to remove the d e-watered solids from the filter press plates and place them in a super sack for offsite disposal. Water from the press is filtered through the filter press screens and the filtrate le aving the filter press passes through a filter press effluent filter	Filter Press Make: EIMCO Model:1200FB-08-PP-CGR-HS-100-1.5x12. Capacity - 12 Cubic foot Filter Press Media Make: FLSmidth Model: Part # MF1225A – Cloth-PL 1200MM-CGR POPR-929M, Fabric Style POPR-929M, 100% Polypropylene, 7 oz. sq. yd. approx. 15-micron. Filter Press Effluent Filter Make: Knight Model: Part Number P-010P2S, 10-micron polypropylene filter sock.	The filter press screens are cleaned and inspected each work day. The screens are also cleaned when the feed line pressure increases indicating pluggage. The filter press effluent filter sock is inspected and replaced each time the filter press screens are cleaned. Visual inspections of this sock are performed looking for larger particles that would indicate a problem with the filter press screens. Screen cleaning and inspections can occur up to 20 times per month depending on the number of cell changes.	The wastewater associated with this operation is discharged into an onsite injection well.

	prior to discharge to the plant's permitted deep well system.	Pressure Monitoring – Filter press feed line pressure is monitored by a line pressure gauge. The filter press feed pump shut s down at 100 psi.		

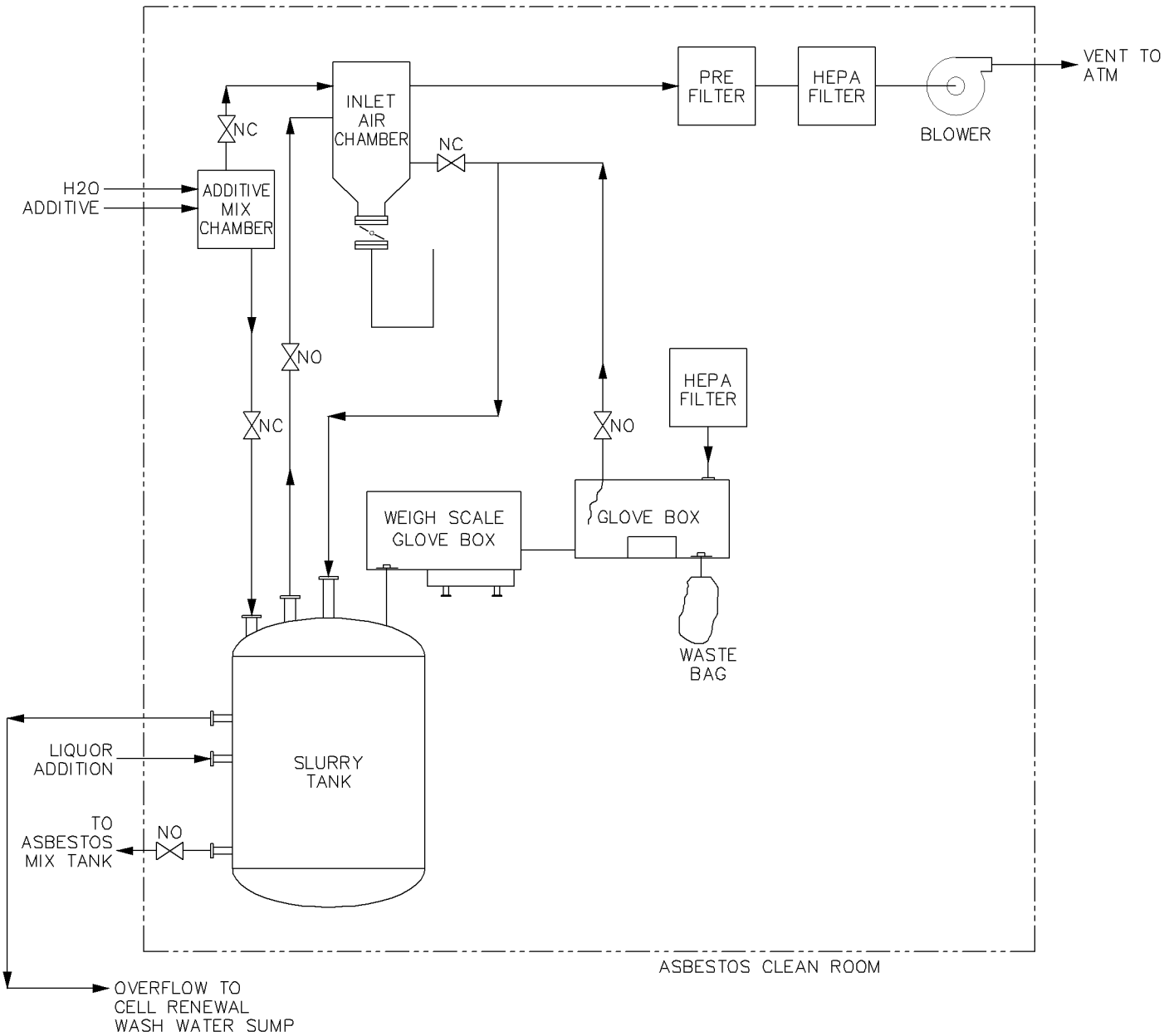
ATTACHMENT 3

Process Flow Diagram of Water Filtration System



ATTACHMENT 4

Asbestos Handling Process Flow Diagram



ASBESTOS HANDLING SYSTEM

INSTALLATION INSTRUCTIONS
Custom Controls Company HEPA Filtration Units

THESE INSTRUCTIONS ARE GENERAL IN NATURE AND ARE SUPERSEDED BY ALL NATIONAL AND/OR LOCAL CODES.

IN THE ABSENCE OF LOCAL CODES REFER TO THE NATIONAL ELECTRICAL CODE, ANSI / NFPA NO.70 (Latest Edition), AND RECOMMENDATIONS MADE BY THE NATIONAL BOARD OF FIRE UNDERWRITERS.

INSTALLATION AND REPAIR MUST BE DONE BY A QUALIFIED PERSON.

INSPECT THE CARTON AND UNIT FOR SHIPPING DAMAGE. IF DAMAGE IS FOUND FILE A CLAIM WITH FREIGHT CARRIER IMMEDIATELY.

INSPECT INTEGRITY OF ALL INTERNAL COMPONENTS.

INSTALL UNIT PLUMB AND LEVEL. VIBRATION ISOLATORS WILL REDUCE SOUND TRANSMISSION TO ADJACENT STRUCTURES.

ALLOW ADEQUATE CLEARANCE AROUND UNIT FOR ACCESS TO SERVICE EQUIPMENT.

FREE AIR FLOW THROUGH THE UNIT MUST BE MAINTAINED WITH CORRECT DUCT SIZE AND FREEDOM FROM EXCESS STATIC.

FLEXIBLE COUPLINGS BETWEEN FLANGES AND METAL DUCT WILL REDUCE NOISE TRANSMISSION.

THIS UNIT MAY BE OPERATED WITH OR WITHOUT A DUCT SYSTEM.

IF NO RETURN AIR DUCT IS USED, INSTALL A RETURN GRILL.

THE UNIT DATA PLATE SHOWS ALL PERTINENT ELECTRICAL INFORMATION.

USE COPPER WIRE FOR ALL FIELD CONNECTIONS.

WHERE UNIT IS MOUNTED TO WOOD, BE SURE IT IS BOLTED TO RIGID FRAME MEMBERS.

GENERAL

The equipment covered in this manual is to be installed by trained, experienced service and installation technicians. The unit is designed for use with or without duct work. Flanges are provided for attaching ducts. These instructions explain the recommended method to install the filtration unit and the electrical wiring connections to the unit.

While these instructions are intended as a general recommended guide, they do not supersede any national and/or local codes in any way. Authorities having jurisdiction should be consulted before the installation is made. Where local regulations are at a variance with instructions, installer should adhere to local codes.

MOUNTING

The unit should be bolted to a level surface, with easy access for future service work.

DUCT WORK

All duct work, supply and return, must be properly sized for the design air flow requirement of the equipment. The unit is designed for a maximum of .5" Wg E.S.P.

Duct through the walls must be insulated and all joints taped or sealed to prevent air or moisture entering the wall cavity.

Some installations may not require any return air duct. It is recommended that on this type of installation that a filter grille be located in the wall.

ELECTRICAL

The blower operates on 460 VAC three phase 60 Hz. Power. The recommended breaker size is 15 amps. A disconnect switch may be required at the filtration unit. Connection should be made with copper wire only, rated 75 degrees C.

Alarm contacts are available to signal when the filters need changed. There is one set of Form C contacts for the pre-filter and one set of Form C contacts for the final filter. These contacts can be wired in series to provide a common alarm.

The motor contactor is equipped with a thermal/magnetic overload to protect the motor.

FILTERS

Pre-Filters:

2" thick pleated throwaway filters provide preliminary (rough) filtration. These filters have approximately .25" Wg resistance when clean, and 1" Wg resistance when loaded. Two 24" x 24" filters are required for the unit.

Final Filters:

The final filter elements are 12" deep, 99.97% efficient HEPA elements. Two 24" x 24" filters are required for the unit. These filters have 1" Wg resistance when clean, and 1.5" Wg resistance when fully loaded.

Operation:
The unit is designed for continuous operation. A local On/Off switch is provided for convenience. Proper Lock Out / Tag Out procedures should be followed when maintenance work is done.

Design air flow is 3000 cfm. The unit is powered by a 5.0 HP motor, and is belt driven. The blower speed has been factory set for correct operation. Blower speed can be reduced by adjusting the drive sheaves. (NOTE: Drive components were changed after shipment by personnel to increase vacuum. CCC does not have a record of final drive components).

Maintenance:

Filter Change:

To change the filters:

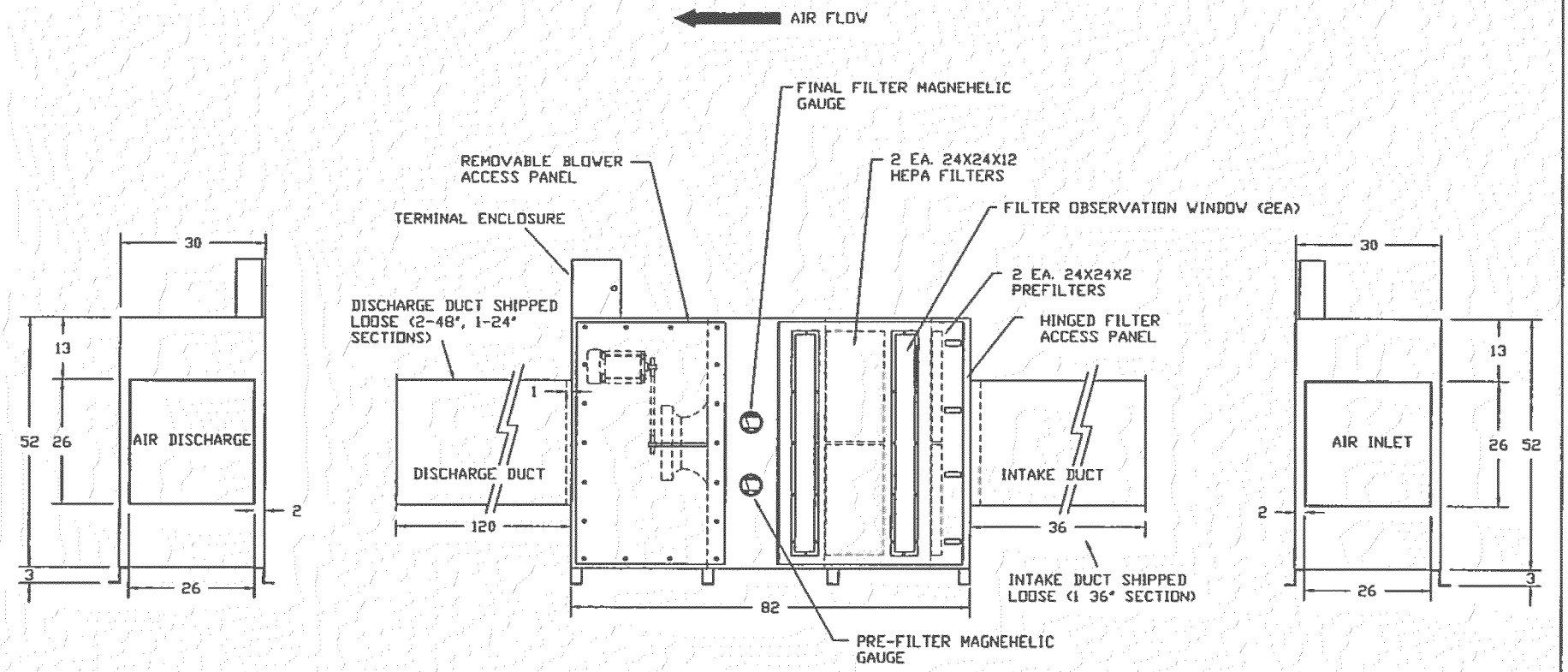
1. Shut down the asbestos chambers, lock out and tag out electrical supply.
2. Let the filter station run for a minute to remove any fibers in the suction ductwork going to th e filtering station.
3. Shut down the filter station, lock out and tag out.
4. After unit fan stops rotating, open access door and change filters.
5. Close access door, and re-start the air filter station.
6. Put asbestos chambers back into operation

Belt Tensioning:
If the drive belts squeal for more than 2-3 seconds on startup, they should be examined for proper tension and glazing. To examine and/or change the belts, turn off the unit as instructed above, and also lock out the main power supply. When power has been safely removed, remove the blower section access panel to access the drive belts. Tighten or replace the belts as required, and replace the access cover. Restore power and restart the unit as instructed above.

The same procedure should be followed when lubricating or replacing the blower bearings. Bearings should be lubricated once per year.

Assistance:

For troubleshooting assistance or spare parts, please contact Custom Controls Company in Houston Texas at 800-231-3112, or 713-666-3258, or fax to 713-666-2486, or email to sales@ customcontrolsco.com.
Reference job #A2126.

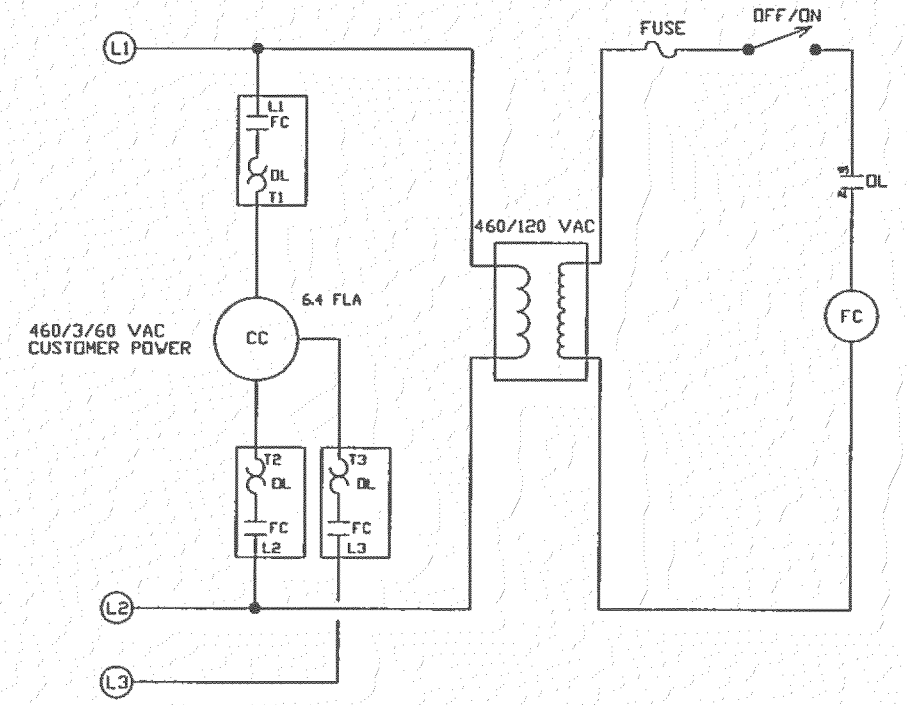


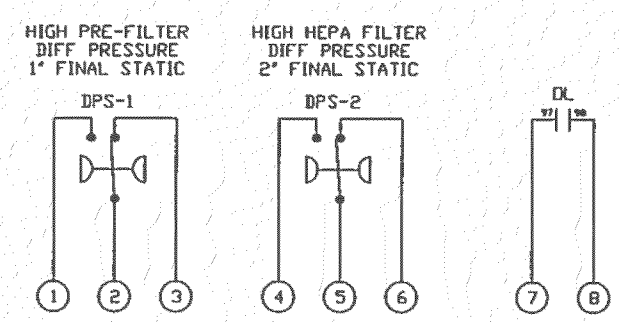
NO.	DATE	REVISIONS	BY	CHK

custom contrds company
ENGINEERING AND MANUFACTURING
6389 ALDER STREET, HOUSTON, TX 77081

MODEL HHF-2000-5.0 HEPA FILTRATION UNIT

DRAWN: NALL	DATE: 10/10/05	ISSUED: AS-BUILT
CHECKED: TIM R.	DATE: 10/10/05	
DWG. A2126-A01	REV: 0 JOB: A2126	SCALE: NONE





NO.	DATE	REVISIONS	BY	CHK

custom contrds company
6300 ALDER STREET, HOUSTON, TX 77081

HEPA FILTRATION UNIT
SCHEMATIC

DRAWN: NALL	DATE: 10/10/05	ISSUED: AS-BUILT
CHECKED: TJM R.	DATE: 01/13/05	
DWG: A2126-V01	REV: 0 JOB: A2126	SCALE: NONE

BASIC WARRANTY

CUSTOM CONTROLS COMPANY (C.C.C.) MAKES NO WARRANTY OF MERCHANTABILITY AND NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE. NOR DOES IT MAKE ANY WARRANTY, EXPRESS OR IMPLIED OF ANY NATURE WHATSOEVER WITH RESPECT TO PRODUCTS SOLD BY C.C.C. OR THE USE THEREOF EXCEPT AS IS SPECIFICALLY SET FORTH ON THE FACE HEREOF, EVEN THOUGH IT MAY HAVE BEEN NEGLIGENCE C.C.C. SHALL IN NO EVENT BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR PENAL DAMAGES. C.C.C. MAKES NO WARRANTY OF ANY KIND EITHER EXPRESS OR IMPLIED TO 'CONSUMERS' AS THAT TERM IS DEFINED IN SEC. 101 OF PUBLIC LAW 93-637, THE MAGNUSON-MOSS WARRANTY-FEDERAL TRADE COMMISSION IMPROVEMENT ACT.

Custom Controls Company (C.C.C.) warrants to the original Purchaser-User that products manufactured by C.C.C. shall be free from defects in material and workmanship under normal use and service for a period of eighteen months from date of shipment from C.C.C. plant or twelve months from date of start-up, whichever period first expires. The obligation of C.C.C. under this warranty is limited to C.C.C. repairing or replacing, free of cost to Purchaser-User, F.O.B. factory, any part or parts that in the judgement of C.C.C. show evidence of defect provided that upon C.C.C. authorization the said part or parts are returned to C.C.C., transportation prepaid, for inspection and judgement. Under this warranty C.C.C. assumes no responsibility for the expense of labor or materials necessary to remove a defective part or install repaired or new parts. This warranty is issued only to the original Purchaser-User, is not transferable, applies only to a unit installed within the United States of America, its territories or possessions and Canada and is in lieu of all other warranties expressed or implied. C.C.C. neither assumes nor authorizes any other person to assume for C.C.C. any liabilities not herein stated. C.C.C. shall not be liable for any damage or delays occurring in transit, for any default or delays in performance caused by any contingency beyond its control including war, government restrictions or restraints, strikes, short or reduced supply of raw materials, fire, flood or other acts of God, nor for damage or loss of any products, refrigerant, property, loss of income or profit due to malfunctioning of said unit.

THE FOREGOING IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, NOT WITHSTANDING THE PROVISION OF THE UNIFORM COMMERCIAL CODE, THE MAGNUSON-MOSS WARRANTY-FEDERAL TRADE COMMISSION IMPROVEMENT ACT, OR ANY OTHER STATUTORY OR COMMON LAW FEDERAL OR STATE.

Unit Model # HHF-2000-5.0 **Job #A2126**
Serial #A2126-1

ATTACHMENT 6

ASBESTOS DUST COLLECTION VENT FILTER SYSTEM CERTIFIED EFFICIENCY

AIR FILTER TESTING LABORATORIES, INC.

4632 Old LaGrange Road Crestwood, Kentucky 40014

REPORT NO. 6255 TEST NO. 1

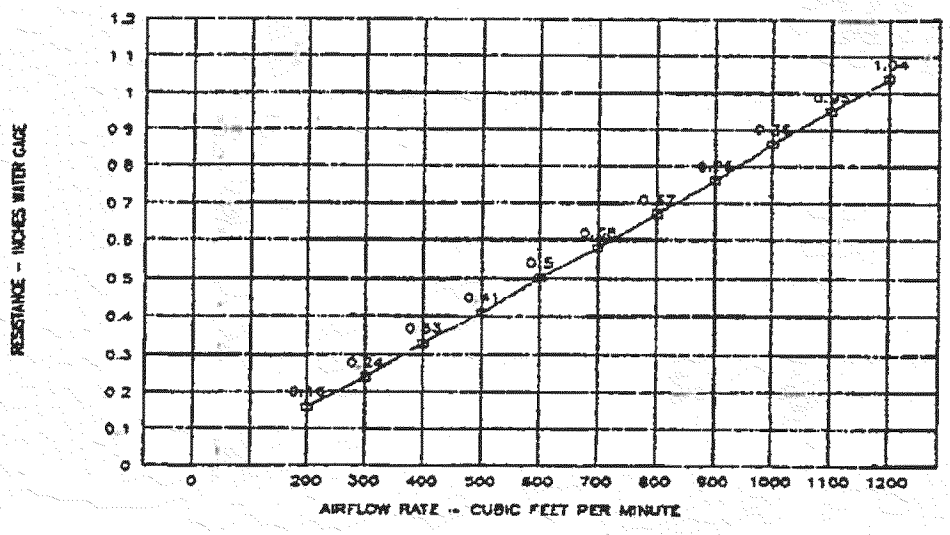
ASHRAE METHOD 52 AIRFLOW VS. RESISTANCE AND MIL STD 282 THERMALLY GENERATED DOP 0.3uM PARTICLE PENETRATION

DEVICE TESTED

TEST REQUESTED BY	GLASFLOSS INDUSTRIES, INC.		
MANUFACTURER	GLASFLOSS INDUSTRIES, INC.		
PRODUCT NAME	MAGNA FILTER		
HOW LABORATORY PROCURED TEST SAMPLE	FURNISHED BY MANUFACTURER		
MODEL NO.	PBM2424B6HX		
DIMENSIONS	24 IN H	24 IN W	11 1/2 IN D
PRODUCT DESCRIPTION:	GLASS FIBER MEDIA - W/ALLUMINUM SEPARATORS AND PARTICLE BOARD CELL SIDES W/GASKETED UPSTR FACE		

DOP 0.3 uM PARTICLE PENETRATION = .008 % @ 1000 CFM

CLEAN FILTER RESISTANCE



DATES OF TEST 8-9-1991

TEST SUPERVISOR D.J.M.

ENGINEERING APPROVAL David J. Murphy Jr.

STATE OF KENTUCKY
DAVID J. MURPHY JR.
6035
REGISTERED PROFESSIONAL ENGINEER

TOTAL P.02

PSE - #G98

DATE: 07/22/05

PARTICLE PENETRATION EFFICIENCY REPORT

REPORT #PD3047

Product's Rated Data	Product Name & Model	Manufacturer	Airflow rate	Initial Delta P
	PBM2424B6OX	GLASFLOSS	500 FPM	1.61 IN. WG

Test Subject Description	Dimensions	Height	Width	Depth
	Standard (in.)	24	24	12
	Metric (mm)	610	610	305
	Media Type	Media Color	Effective Media Area	Pockets
	MICROFINE FIBERGLASS	WHITE	230.0 sq. ft.	NA

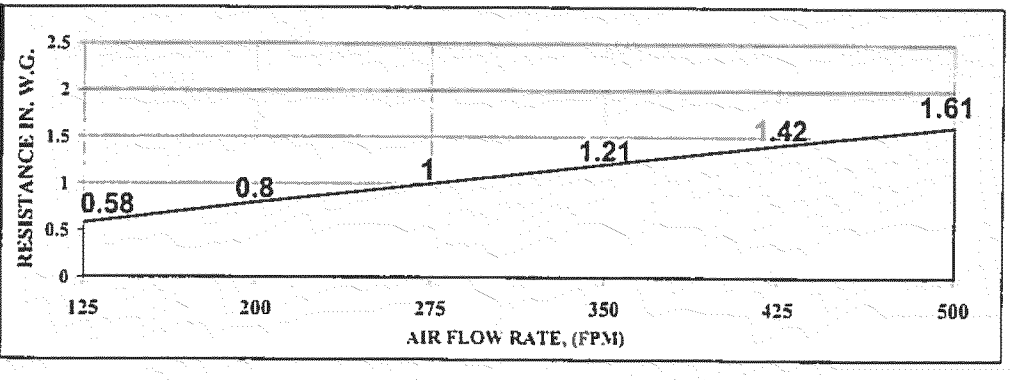
Laboratory Data	Test Engineer	Test #	Particle Photometer	Manometers
	T.MCGRATH	PD3047	ATI TDA-2E	Dwyer -Red Oil

Test Conditions	Airflow Rate	Sample Rate	Temperature	R. Humidity
	500 FPM	Standard Scan Procedure	80.2	35%

MAXIMUM SCANNED PENETRATION	0.03 uM PENETRATION	Airflow Rate
	0.009%	500 FPM

Air Flow & Resistance Data	FPM	Resistance in. w.g.	Meters per Second	kPA
	125	0.58	0.16	0.145
	200	0.8	0.26	0.2
	275	1	0.35	0.249
	350	1.21	0.45	0.302
	425	1.42	0.54	0.354
	500	1.61	0.64	0.401

Resistance Graph



Glasfloss has a policy of uninterrupted research, development and product improvement and reserves the right to change design and specifications without notice.

Recommended Asbestos Dust Collector Preventive Maintenance

1. Every six months*

   - Replace pre-filters every six months or sooner if pressure drop reached 1" water.
   - Check for unusual noise or vibration.
   - Check belts for wear or adjustment. Replace if necessary.

* Perform initial inspection in July 2006.

2. Annually

   - Replace HEPA filters every twelve months or sooner if pressure drop reached 2" water.
   - Calibrate Magnehelic pressure drop gauge.
   - Calibrate pressure gauge on glove box.
   - Check for unusual noise or vibration.
   - Check belts for wear or adjustment. Replace if necessary.

3. Recommended Minimum Stores Spare Parts

   - 2 Pre-filters – part # A2126-24242TA
   - 2 HEPA filters – Pat# A2126-24242412G
   - 1 Matched set drive belts (2)

ATTACHMENT 8

Weekly Inspection Record
Air Cleaning Device Inspection Checklist

Requirement of Compliance

Inspect air cleaning device at least once a week for proper operation and for changes that signal the potential for malfunctions. Observe the pre-filter and HEPA filter differential pressure. Change the filter when it reaches the high pressure drop limit of 1" water for pre-filter or 2" water for HEPA filter. If the pressure drop is 0" water for pre-filter or 0.05 " water for the HEPA filter there may be a hole in the filter. Stop the operation and notify the process supervisor or chief tech immediately.

Inspect the clean side of the HEPA filter through the windows using a flashlight for the presence of tears, holes, and abrasions in filter and for dust deposits on the clean side of the HEPA filter. Perform a similar inspection between the pre-filer and HEPA filter.

1. Air cleaning device designation or number — 8-73 (Dust Collector)
2. Date of Inspection
3. Time of Inspection
4. Daily Hours of Operation
5. Is air cleaning device operating properly? (yes/no)
6. Filter differential pressure(s):
   Pre filter 0.01-1" water (normal) — Pre-filter DP:
   HEPA filter 0.15 -2" water (normal) — HEPA filter DP:
7. Tears, holes, or abrasions in filter (yes/no)*
8. Dust deposits on clean side of filters (yes/no)*
9. Other signs of potential malfunctions (yes/no)*
10. If yes, describe other malfunctions or signs of potential malfunctions. (Note: Add specific operating information, such as DP on filter.)
11. Visible emissions observed (yes/no)*
12. Describe corrective action(s) taken.
13. Date and time corrective action taken. — Date _____ Time _____
14. Inspected by:

Print/Type Name	Title	Signature	Date
Print/Type Name-Supv.	Title	Signature	Date

Note: If these items are checked 'yes', the asbestos activity will be shutdown, as safely and efficiently as possible, until the situation is rectified. Immediate notification to the supervisor / environmental group should be made. If visible emissions are seen, it must be included in the quarterly report to the agency.

204-32 Rev 0 05/26/2011

ATTACHMENT 9

Daily Inspection Record
VISIBLE ASBESTOS EMISSION MONITORING
For Cell Renewal Operations and Asbestos Storage Room

Visible Emissions: Means any emissions, which are visually detectable without the aid of instruments, coming from regulated asbestos -contaminated material or asbestos -containing waste material, or from any asbestos milling, manufacturing, or fabricating operation. This does not include condensed, uncombined water vapor. **All visible emissions monitoring must be performed for a minimum of 15 seconds per source during DAYLIGHT HOURS ONLY . Monitoring must occur no earlier than 7:30 AM and no later than 3:30 PM.**

Date of Inspection (mm/dd/yy) _____

☐ Operating **(complete the entire form)**

☐ No work activity (Fridays, weekends, holidays, etc.) **(stop here)**

Time of Inspection **Daylight Hours ONLY**	Air Cleaning Device or Fugitive Source Designation or Number	Visible Emission Observed	Corrective Action Taken	If Yes, Duration of Visible Emission	Daily Operating Hours	Inspector's Initials
	Asbestos Warehouse	yes no				
	Asbestos Handling Area	yes no				
	Dust Collector Vent (8-73)	yes no				
	Cathode Wash Rack	yes no				
	Cathode Depositing Tank and Compressor Vent	yes no				
	Diaphragm Baking Oven Vent (2-75)	yes no				
	Asbestos Filter & Disposal Bin	yes no				
	*North HCl Scrubber Flow (in)	yes no				
	*South HCl Scrubber Flow (in)	yes no				
	*HCl Seal Pot Overflow (out)	yes no				

* If no flow shut down HCl Operation

Reviewed By:

_____	_____	_____	_____
Print/Type Name	Title	Signature	Date

Please comment on specific Corrective Action taken:_____

_____

_____

Note: If visible emissions are observed, the operation will be shutdown as safely and efficiently as possible, until the situation is rectified. Immediate notification to the process supervisor and the HES Department should be made.

204-11 Rev. 3 08/15/2006

ATTACHMENT 10

Asbestos Exposure Data - Sorted In Chronological Order

(Short-Term Limit = 1 f/cc; Full-Shift Limit = 0.1 f/cc)

Sample Type	Process Stage	Task	Date	Sample Result
Short-Term Sample	2	Asbestos Unloading/Transport	2011	0.12
Short-Term Sample	2	Asbestos Unloading/Transport	2012	0.03
Short-Term Sample	2	Asbestos Unloading/Transport	2012	<0.02
Short-Term Sample	2	Asbestos Unloading/Transport	2012	<0.01
Short-Term Sample	2	Asbestos Unloading/Transport	2013	<0.02
Short-Term Sample	2	Asbestos Unloading/Transport	2014	<0.016
Short-Term Sample	2	Asbestos Unloading/Transport	2014	<0.016
Short-Term Sample	2	Asbestos Unloading/Transport	2014	0.059
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2004	<0.068
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2004	0.239
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2004	<0.05
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2004	0.058
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2004	<0.026
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2004	0.04
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2004	<0.029
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2004	0.107
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2004	<0.034
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2005	<0.023
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2005	<0.028
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2005	<0.029
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2005	0.029
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2005	0.022
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2005	0.041
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2006	<0.061
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2006	<0.063
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2006	<0.064
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2006	0.441
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2006	0.091
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2006	0.015
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2006	0.012
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2006	<0.035
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2007	<0.061
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2007	<0.061
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2007	0.01
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2007	0.014
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2007	0.03
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2007	<0.013
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2007	<0.013
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2007	0.26
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2007	<0.01
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2007	0.012
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2007	<0.062

ATTACHMENT 10

Asbestos Exposure Data - Sorted In Chronological Order

(Short-Term Limit = 1 f/cc; Full-Shift Limit = 0.1 f/cc)

Sample Type	Process Stage	Task	Date	Sample Result
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2007	<0.062
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2008	<0.035
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2008	<0.001
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2008	<0.01
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2008	<0.06
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2008	0.003
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2008	<0.01
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2008	0.163
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2008	<0.062
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2009	<0.009
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2009	<0.01
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2009	0.088
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2009	0.074
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2009	0.82
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2010	0.07
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2010	0.26
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2010	0.021
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2010	0.38
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2011	0.89
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2011	<0.08
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2011	<0.011
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2011	0.063
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2011	<0.084
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2011	0.11
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2011	0.081
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2011	0.12
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2011	0.076
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2011	<0.079
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2011	<0.03
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2011	0.38
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2011	0.146
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2011	0.02
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2011	<0.03
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2011	0.03
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2011	<0.07
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2011	0.02
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2012	<0.074
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2012	0.03
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2012	0.06
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2012	0.07
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2012	<0.073
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2012	0.09

ATTACHMENT 10

Asbestos Exposure Data - Sorted In Chronological Order

(Short-Term Limit = 1 f/cc; Full-Shift Limit = 0.1 f/cc)

Sample Type	Process Stage	Task	Date	Sample Result
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2012	0.018
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2012	0.04
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2012	<0.02
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2012	0.023
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2012	<0.066
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2012	<0.02
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2012	<0.02
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2012	<0.027
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2012	<0.01
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2013	<0.039
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2013	<0.074
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2013	<0.02
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2013	<0.03
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2013	<0.03
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2013	<0.02
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2013	<0.026
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2013	0.026
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2013	<0.082
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2013	<0.163
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2013	0.33
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2013	<0.02
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2013	<0.02
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2013	<0.05
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2013	<0.026
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2013	<0.076
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2013	<0.02
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2013	0.31
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	0.09
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	0.056
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	<0.035
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	<0.016
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	<0.031
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	<0.032
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	<0.016
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	<0.016
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	<0.032
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	0.032
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	<0.03
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	0.032
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	0.036
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	<0.021
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	0.056

ATTACHMENT 10

Asbestos Exposure Data - Sorted In Chronological Order

(Short-Term Limit = 1 f/cc; Full-Shift Limit = 0.1 f/cc)

Sample Type	Process Stage	Task	Date	Sample Result
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	<0.016
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	<0.021
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	<0.032
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	0.459
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	<0.016
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	<0.016
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2014	0.059
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2015	<0.068
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2015	0.44
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2015	<0.011
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2015	<0.016
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2015	<0.026
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2015	0.016
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2015	0.076
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2015	<0.016
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2015	0.45
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2015	<0.077
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2015	0.44
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2015	<0.081
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2015	0.92
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2015	<0.076
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2015	0.0026
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2015	<0.016
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2015	<0.032
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2015	<0.032
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2016	1.7
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2016	<0.021
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2016	<0.065
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2016	0.058
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	2016	<0.022
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	02/07/201	0.089
Short-Term Sample	3	Glovebox Weighing and Asbestos Handling	07/23/204	0.128
Short-Term Sample	4	Asbestos Slurry	2011	0.02
Short-Term Sample	4	Asbestos Slurry	2011	0.02
Short-Term Sample	4	Asbestos Slurry	2012	0.04
Short-Term Sample	4	Asbestos Slurry	2014	<0.032
Short-Term Sample	4	Asbestos Slurry	2014	<0.016
Short-Term Sample	5	Depositing	2004	<0.061
Short-Term Sample	5	Depositing	2004	<0.05
Short-Term Sample	5	Depositing	2004	<0.055
Short-Term Sample	5	Depositing	2005	<0.044
Short-Term Sample	5	Depositing	2005	<0.001

ATTACHMENT 10

Asbestos Exposure Data - Sorted In Chronological Order

(Short-Term Limit = 1 f/cc; Full-Shift Limit = 0.1 f/cc)

Sample Type	Process Stage	Task	Date	Sample Result
Short-Term Sample	5	Depositing	2006	0.044
Short-Term Sample	5	Depositing	2006	0.012
Short-Term Sample	5	Depositing	2008	0.01
Short-Term Sample	5	Depositing	2008	0.067
Short-Term Sample	5	Depositing	2008	<0.005
Short-Term Sample	5	Depositing	2008	0.037
Short-Term Sample	5	Depositing	2008	<0.012
Short-Term Sample	5	Depositing	2008	0.037
Short-Term Sample	5	Depositing	2009	<0.01
Short-Term Sample	5	Depositing	2009	<0.01
Short-Term Sample	5	Depositing	2009	0.017
Short-Term Sample	5	Depositing	2009	0.014
Short-Term Sample	5	Depositing	2010	0.012
Short-Term Sample	5	Depositing	2010	0.011
Short-Term Sample	5	Depositing	2011	<0.025
Short-Term Sample	5	Depositing	2011	<0.027
Short-Term Sample	5	Depositing	2011	0.043
Short-Term Sample	5	Depositing	2011	0.1
Short-Term Sample	5	Depositing	2012	<0.016
Short-Term Sample	5	Depositing	2012	0.011
Short-Term Sample	5	Depositing	2012	<0.021
Short-Term Sample	5	Depositing	2012	<0.008
Short-Term Sample	6	Cell Assembly	2004	<0.154
Short-Term Sample	6	Cell Assembly	2004	<0.039
Short-Term Sample	6	Cell Assembly	2004	<0.055
Short-Term Sample	6	Cell Assembly	2004	<0.057
Short-Term Sample	6	Cell Assembly	2004	<0.037
Short-Term Sample	6	Cell Assembly	2004	0.055
Short-Term Sample	6	Cell Assembly	2005	0.046
Short-Term Sample	6	Cell Assembly	2005	0.032
Short-Term Sample	6	Cell Assembly	2005	<0.016
Short-Term Sample	6	Cell Assembly	2005	<0.016
Short-Term Sample	6	Cell Assembly	2006	0.028
Short-Term Sample	6	Cell Assembly	2007	0.028
Short-Term Sample	6	Cell Assembly	2007	<0.01
Short-Term Sample	6	Cell Assembly	2007	0.012
Short-Term Sample	6	Cell Assembly	2008	<0.01
Short-Term Sample	6	Cell Assembly	2008	0.018
Short-Term Sample	6	Cell Assembly	2009	<0.01
Short-Term Sample	6	Cell Assembly	2010	0.074
Short-Term Sample	6	Cell Assembly	2010	0.0089
Short-Term Sample	6	Cell Assembly	2013	<0.016

ATTACHMENT 10

Asbestos Exposure Data - Sorted In Chronological Order

(Short-Term Limit = 1 f/cc; Full-Shift Limit = 0.1 f/cc)

Sample Type	Process Stage	Task	Date	Sample Result
Short-Term Sample	6	Cell Assembly	2013	0.044
Short-Term Sample	6	Cell Assembly	2013	<0.008
Short-Term Sample	6	Cell Assembly	2013	<0.0079
Short-Term Sample	6	Cell Assembly	2014	0.022
Short-Term Sample	6	Cell Assembly	2014	<0.011
Short-Term Sample	6	Cell Assembly	2014	<0.021
Short-Term Sample	6	Cell Assembly	2014	0.016
Short-Term Sample	6	Cell Assembly	2015	<0.019
Short-Term Sample	6	Cell Assembly	2015	<0.024
Short-Term Sample	6	Cell Assembly	2015	<0.016
Short-Term Sample	6	Cell Assembly	2015	<0.024
Short-Term Sample	8	Cell Disassembly	2004	<0.068
Short-Term Sample	8	Filter Press	2004	<0.133
Short-Term Sample	8	Cell Disassembly	2004	<0.033
Short-Term Sample	8	Filter Press	2004	0.122
Short-Term Sample	8	Hydroblasting	2004	<0.095
Short-Term Sample	8	Hydroblasting	2004	<0.073
Short-Term Sample	8	Cell Disassembly	2004	<0.028
Short-Term Sample	8	Cell Disassembly	2004	<0.05
Short-Term Sample	8	Filter Press	2004	<0.058
Short-Term Sample	8	Hydroblasting	2004	<0.057
Short-Term Sample	8	Hydroblasting	2004	<0.068
Short-Term Sample	8	Cell Disassembly	2004	<0.043
Short-Term Sample	8	Cell Disassembly	2004	0.058
Short-Term Sample	8	Hydroblasting	2004	<0.035
Short-Term Sample	8	Hydroblasting	2004	0.068
Short-Term Sample	8	Hydroblasting	2004	<0.064
Short-Term Sample	8	Hydroblasting	2004	<0.063
Short-Term Sample	8	Cell Disassembly	2004	<0.026
Short-Term Sample	8	Filter Press	2004	0.014
Short-Term Sample	8	Cell Disassembly	2004	<0.058
Short-Term Sample	8	Cell Disassembly	2004	0.026
Short-Term Sample	8	Cell Disassembly	2005	<0.072
Short-Term Sample	8	Cell Disassembly	2005	0.023
Short-Term Sample	8	Cell Disassembly	2006	0.069
Short-Term Sample	8	Filter Press	2011	0.031
Short-Term Sample	8	Filter Press	2011	0.063
Short-Term Sample	8	Filter Press	2011	0.099
Short-Term Sample	8	Filter Press	2011	0.07
Short-Term Sample	8	Filter Press	2011	0.047
Short-Term Sample	8	Cell Disassembly	2011	<0.03
Short-Term Sample	8	Cell Disassembly	2011	0.03

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Asbestos Exposure Data - Sorted In Chronological Order

(Short-Term Limit = 1 f/cc; Full-Shift Limit = 0.1 f/cc)

Sample Type	Process Stage	Task	Date	Sample Result
Short-Term Sample	8	Cell Disassembly	2011	<0.03
Short-Term Sample	8	Filter Press	2011	0.05
Short-Term Sample	8	Filter Press	2011	0.07
Short-Term Sample	8	Cell Disassembly	2012	0.06
Short-Term Sample	8	Cell Disassembly	2012	0.08
Short-Term Sample	8	Filter Press	2012	0.16
Short-Term Sample	8	Filter Press	2012	0.03
Short-Term Sample	8	Filter Press	2012	0.09
Short-Term Sample	8	Filter Press	2012	0.093
Short-Term Sample	8	Cell Disassembly	2012	0.45
Short-Term Sample	8	Cell Disassembly	2012	0.018
Short-Term Sample	8	Filter Press	2012	0.086
Short-Term Sample	8	Cell Disassembly	2012	0.023
Short-Term Sample	8	Filter Press	2012	<0.03
Short-Term Sample	8	Filter Press	2012	0.026
Short-Term Sample	8	Cell Disassembly	2012	<0.02
Short-Term Sample	8	Filter Press	2013	0.1
Short-Term Sample	8	Cell Disassembly	2013	<0.02
Short-Term Sample	8	Cell Disassembly	2013	<0.03
Short-Term Sample	8	Cell Disassembly	2013	<0.02
Short-Term Sample	8	Cell Disassembly	2013	0.026
Short-Term Sample	8	Filter Press	2013	<0.02
Short-Term Sample	8	Cell Disassembly	2013	<0.02
Short-Term Sample	8	Cell Disassembly	2013	<0.05
Short-Term Sample	8	Cell Disassembly	2013	<0.02
Short-Term Sample	8	Filter Press	2013	0.0253
Short-Term Sample	8	Filter Press	2013	<0.03
Short-Term Sample	8	Cell Disassembly	2013	<0.02
Short-Term Sample	8	Filter Press	2013	<0.01
Short-Term Sample	8	Cell Disassembly	2013	<0.01
Short-Term Sample	8	Filter Press	2014	0.2
Short-Term Sample	8	Hydroblasting	2014	0.18
Short-Term Sample	8	Cell Disassembly	2014	<0.031
Short-Term Sample	8	Cell Disassembly	2014	<0.032
Short-Term Sample	8	Filter Press	2014	0.026
Short-Term Sample	8	Filter Press	2014	<0.0026
Short-Term Sample	8	Cell Disassembly	2014	<0.032
Short-Term Sample	8	Cell Disassembly	2014	0.032
Short-Term Sample	8	Filter Press	2014	<0.021
Short-Term Sample	8	Cell Disassembly	2014	0.032
Short-Term Sample	8	Hydroblasting	2014	0.13
Short-Term Sample	8	Hydroblasting	2014	0.15

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Asbestos Exposure Data - Sorted In Chronological Order

(Short-Term Limit = 1 f/cc; Full-Shift Limit = 0.1 f/cc)

Sample Type	Process Stage	Task	Date	Sample Result
Short-Term Sample	8	Cell Disassembly	2014	<0.021
Short-Term Sample	8	Cell Disassembly	2014	0.056
Short-Term Sample	8	Hydroblasting	2014	0.35
Short-Term Sample	8	Hydroblasting	2014	0.36
Short-Term Sample	8	Cell Disassembly	2014	<0.021
Short-Term Sample	8	Cell Disassembly	2014	<0.032
Short-Term Sample	8	Cell Disassembly	2014	0.027
Short-Term Sample	8	Filter Press	2014	<0.016
Short-Term Sample	8	Filter Press	2015	<0.011
Short-Term Sample	8	Filter Press	2015	<0.017
Short-Term Sample	8	Cell Disassembly	2015	<0.016
Short-Term Sample	8	Filter Press	2015	0.065
Short-Term Sample	8	Cell Disassembly	2015	0.076
Short-Term Sample	8	Cell Disassembly	2015	<0.016
Short-Term Sample	8	Cell Disassembly	2015	<0.016
Short-Term Sample	8	Hydroblasting	2015	0.25
Short-Term Sample	8	Hydroblasting	2015	0.32
Short-Term Sample	8	Hydroblasting	2015	0.45
Short-Term Sample	8	Hydroblasting	2015	0.51
Short-Term Sample	8	Filter Press	2015	<0.0064
Short-Term Sample	8	Filter Press	2015	<0.0085
Short-Term Sample	8	Cell Disassembly	2015	<0.016
Short-Term Sample	8	Cell Disassembly	2015	<0.032
Short-Term Sample	8	Cell Disassembly	2015	<0.032
Short-Term Sample	8	Filter Press	2016	<0.0057
Short-Term Sample	8	Cell Disassembly	2016	<0.032
Short-Term Sample	8	Cell Disassembly	2016	<0.065
Short-Term Sample	8	Filter Press	2016	<0.025
Short-Term Sample	8	Hydroblasting	2016	<0.02
Short-Term Sample	8	Hydroblasting	2016	0.24
Short-Term Sample	8	Filter Press	2016	<0.022
Short-Term Sample	8	Hydroblasting	2016	0.16
Full-Shift Sample	-	Full-Shift Sampling	1996	<0.01
Full-Shift Sample	-	Full-Shift Sampling	1997	<0.01
Full-Shift Sample	-	Full-Shift Sampling	1997	<0.01
Full-Shift Sample	-	Full-Shift Sampling	1997	<0.01
Full-Shift Sample	-	Full-Shift Sampling	1997	<0.01
Full-Shift Sample	-	Full-Shift Sampling	1997	<0.01
Full-Shift Sample	-	Full-Shift Sampling	1999	<0.01
Full-Shift Sample	-	Full-Shift Sampling	1999	<0.01
Full-Shift Sample	-	Full-Shift Sampling	1999	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2000	<0.01

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Asbestos Exposure Data - Sorted In Chronological Order

(Short-Term Limit = 1 f/cc; Full-Shift Limit = 0.1 f/cc)

Sample Type	Process Stage	Task	Date	Sample Result
Full-Shift Sample	-	Full-Shift Sampling	2000	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2000	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2004	0.007
Full-Shift Sample	-	Full-Shift Sampling	2004	0.01
Full-Shift Sample	-	Full-Shift Sampling	2004	0.015
Full-Shift Sample	-	Full-Shift Sampling	2004	0.008
Full-Shift Sample	-	Full-Shift Sampling	2004	<0.004
Full-Shift Sample	-	Full-Shift Sampling	2004	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2004	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2004	<0.005
Full-Shift Sample	-	Full-Shift Sampling	2004	0.009
Full-Shift Sample	-	Full-Shift Sampling	2004	0.007
Full-Shift Sample	-	Full-Shift Sampling	2004	0.015
Full-Shift Sample	-	Full-Shift Sampling	2004	0.018
Full-Shift Sample	-	Full-Shift Sampling	2004	0.013
Full-Shift Sample	-	Full-Shift Sampling	2004	0.012
Full-Shift Sample	-	Full-Shift Sampling	2004	0.018
Full-Shift Sample	-	Full-Shift Sampling	2004	<0.006
Full-Shift Sample	-	Full-Shift Sampling	2005	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2005	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2005	0.017
Full-Shift Sample	-	Full-Shift Sampling	2005	0.005
Full-Shift Sample	-	Full-Shift Sampling	2005	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2005	0.01
Full-Shift Sample	-	Full-Shift Sampling	2005	0.01
Full-Shift Sample	-	Full-Shift Sampling	2005	0.027
Full-Shift Sample	-	Full-Shift Sampling	2005	0.013
Full-Shift Sample	-	Full-Shift Sampling	2005	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2005	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2005	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2005	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2005	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2005	0.013
Full-Shift Sample	-	Full-Shift Sampling	2005	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2005	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2005	0.01
Full-Shift Sample	-	Full-Shift Sampling	2005	<0.004
Full-Shift Sample	-	Full-Shift Sampling	2005	<0.0041
Full-Shift Sample	-	Full-Shift Sampling	2006	<0.0038
Full-Shift Sample	-	Full-Shift Sampling	2006	<0.0038
Full-Shift Sample	-	Full-Shift Sampling	2006	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2006	<0.01

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Asbestos Exposure Data - Sorted In Chronological Order

(Short-Term Limit = 1 f/cc; Full-Shift Limit = 0.1 f/cc)

Sample Type	Process Stage	Task	Date	Sample Result
Full-Shift Sample	-	Full-Shift Sampling	2006	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2006	<0.0658
Full-Shift Sample	-	Full-Shift Sampling	2006	<0.0042
Full-Shift Sample	-	Full-Shift Sampling	2006	<0.0045
Full-Shift Sample	-	Full-Shift Sampling	2006	<0.0708
Full-Shift Sample	-	Full-Shift Sampling	2006	<0.0802
Full-Shift Sample	-	Full-Shift Sampling	2006	<0.0684
Full-Shift Sample	-	Full-Shift Sampling	2006	0.027
Full-Shift Sample	-	Full-Shift Sampling	2006	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2006	0.029
Full-Shift Sample	-	Full-Shift Sampling	2006	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2006	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2006	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2006	<0.006
Full-Shift Sample	-	Full-Shift Sampling	2006	<0.006
Full-Shift Sample	-	Full-Shift Sampling	2006	<0.006
Full-Shift Sample	-	Full-Shift Sampling	2006	<0.0043
Full-Shift Sample	-	Full-Shift Sampling	2006	<0.0044
Full-Shift Sample	-	Full-Shift Sampling	2007	<0.0046
Full-Shift Sample	-	Full-Shift Sampling	2007	0.0252
Full-Shift Sample	-	Full-Shift Sampling	2007	0.006
Full-Shift Sample	-	Full-Shift Sampling	2007	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2007	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2007	0.02
Full-Shift Sample	-	Full-Shift Sampling	2007	0.035
Full-Shift Sample	-	Full-Shift Sampling	2007	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2007	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2007	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2007	<0.0051
Full-Shift Sample	-	Full-Shift Sampling	2007	<0.0051
Full-Shift Sample	-	Full-Shift Sampling	2007	<0.0053
Full-Shift Sample	-	Full-Shift Sampling	2007	<0.001
Full-Shift Sample	-	Full-Shift Sampling	2007	<0.004
Full-Shift Sample	-	Full-Shift Sampling	2007	0.006
Full-Shift Sample	-	Full-Shift Sampling	2007	0.027
Full-Shift Sample	-	Full-Shift Sampling	2007	<0.062
Full-Shift Sample	-	Full-Shift Sampling	2007	<0.005
Full-Shift Sample	-	Full-Shift Sampling	2007	<0.005
Full-Shift Sample	-	Full-Shift Sampling	2007	<0.005
Full-Shift Sample	-	Full-Shift Sampling	2007	<0.005
Full-Shift Sample	-	Full-Shift Sampling	2007	<0.051
Full-Shift Sample	-	Full-Shift Sampling	2008	<0.0056

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Asbestos Exposure Data - Sorted In Chronological Order

(Short-Term Limit = 1 f/cc; Full-Shift Limit = 0.1 f/cc)

Sample Type	Process Stage	Task	Date	Sample Result
Full-Shift Sample	-	Full-Shift Sampling	2008	<0.0058
Full-Shift Sample	-	Full-Shift Sampling	2008	0.018
Full-Shift Sample	-	Full-Shift Sampling	2008	<0.005
Full-Shift Sample	-	Full-Shift Sampling	2008	0.005
Full-Shift Sample	-	Full-Shift Sampling	2008	<0.009
Full-Shift Sample	-	Full-Shift Sampling	2008	<0.003
Full-Shift Sample	-	Full-Shift Sampling	2008	<0.0053
Full-Shift Sample	-	Full-Shift Sampling	2008	<0.0053
Full-Shift Sample	-	Full-Shift Sampling	2008	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2008	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2009	<0.0051
Full-Shift Sample	-	Full-Shift Sampling	2009	<0.0051
Full-Shift Sample	-	Full-Shift Sampling	2009	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2009	<0.0053
Full-Shift Sample	-	Full-Shift Sampling	2009	<0.0068
Full-Shift Sample	-	Full-Shift Sampling	2009	<0.0069
Full-Shift Sample	-	Full-Shift Sampling	2009	<0.0055
Full-Shift Sample	-	Full-Shift Sampling	2009	<0.0059
Full-Shift Sample	-	Full-Shift Sampling	2009	<0.0059
Full-Shift Sample	-	Full-Shift Sampling	2009	<0.005
Full-Shift Sample	-	Full-Shift Sampling	2009	<0.006
Full-Shift Sample	-	Full-Shift Sampling	2009	<0.006
Full-Shift Sample	-	Full-Shift Sampling	2009	0.0062
Full-Shift Sample	-	Full-Shift Sampling	2009	<0.0053
Full-Shift Sample	-	Full-Shift Sampling	2009	<0.0054
Full-Shift Sample	-	Full-Shift Sampling	2009	<0.0054
Full-Shift Sample	-	Full-Shift Sampling	2009	<0.0054
Full-Shift Sample	-	Full-Shift Sampling	2009	<0.0054
Full-Shift Sample	-	Full-Shift Sampling	2009	<0.0053
Full-Shift Sample	-	Full-Shift Sampling	2009	<0.0054
Full-Shift Sample	-	Full-Shift Sampling	2010	<0.0066
Full-Shift Sample	-	Full-Shift Sampling	2010	<0.0068
Full-Shift Sample	-	Full-Shift Sampling	2010	<0.007
Full-Shift Sample	-	Full-Shift Sampling	2010	<0.0073
Full-Shift Sample	-	Full-Shift Sampling	2010	0.0021
Full-Shift Sample	-	Full-Shift Sampling	2010	<0.005
Full-Shift Sample	-	Full-Shift Sampling	2010	<0.005
Full-Shift Sample	-	Full-Shift Sampling	2010	0.0016
Full-Shift Sample	-	Full-Shift Sampling	2010	0.0048
Full-Shift Sample	-	Full-Shift Sampling	2010	<0.0049
Full-Shift Sample	-	Full-Shift Sampling	2010	0.0051
Full-Shift Sample	-	Full-Shift Sampling	2010	0.0076

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Asbestos Exposure Data - Sorted In Chronological Order

(Short-Term Limit = 1 f/cc; Full-Shift Limit = 0.1 f/cc)

Sample Type	Process Stage	Task	Date	Sample Result
Full-Shift Sample	-	Full-Shift Sampling	2010	<0.009
Full-Shift Sample	-	Full-Shift Sampling	2010	<0.004
Full-Shift Sample	-	Full-Shift Sampling	2010	<0.0044
Full-Shift Sample	-	Full-Shift Sampling	2011	0.022
Full-Shift Sample	-	Full-Shift Sampling	2011	0.067
Full-Shift Sample	-	Full-Shift Sampling	2011	0.0073
Full-Shift Sample	-	Full-Shift Sampling	2011	<0.041
Full-Shift Sample	-	Full-Shift Sampling	2011	<0.041
Full-Shift Sample	-	Full-Shift Sampling	2011	0.029
Full-Shift Sample	-	Full-Shift Sampling	2011	0.043
Full-Shift Sample	-	Full-Shift Sampling	2011	0.002
Full-Shift Sample	-	Full-Shift Sampling	2011	<0.0035
Full-Shift Sample	-	Full-Shift Sampling	2011	0.011
Full-Shift Sample	-	Full-Shift Sampling	2011	0.023
Full-Shift Sample	-	Full-Shift Sampling	2011	<0.0066
Full-Shift Sample	-	Full-Shift Sampling	2011	<0.0068
Full-Shift Sample	-	Full-Shift Sampling	2011	<0.0068
Full-Shift Sample	-	Full-Shift Sampling	2011	<0.084
Full-Shift Sample	-	Full-Shift Sampling	2011	0.023
Full-Shift Sample	-	Full-Shift Sampling	2011	<0.0054
Full-Shift Sample	-	Full-Shift Sampling	2011	0.0093
Full-Shift Sample	-	Full-Shift Sampling	2011	0.01
Full-Shift Sample	-	Full-Shift Sampling	2011	0.01
Full-Shift Sample	-	Full-Shift Sampling	2011	0.01
Full-Shift Sample	-	Full-Shift Sampling	2011	0.01
Full-Shift Sample	-	Full-Shift Sampling	2011	0.05
Full-Shift Sample	-	Full-Shift Sampling	2011	<0.0039
Full-Shift Sample	-	Full-Shift Sampling	2011	<0.004
Full-Shift Sample	-	Full-Shift Sampling	2012	<0.0035
Full-Shift Sample	-	Full-Shift Sampling	2012	<0.0036
Full-Shift Sample	-	Full-Shift Sampling	2012	0.0039
Full-Shift Sample	-	Full-Shift Sampling	2012	<0.0042
Full-Shift Sample	-	Full-Shift Sampling	2012	<0.0043
Full-Shift Sample	-	Full-Shift Sampling	2012	<0.0043
Full-Shift Sample	-	Full-Shift Sampling	2012	<0.0043
Full-Shift Sample	-	Full-Shift Sampling	2012	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2012	0.01
Full-Shift Sample	-	Full-Shift Sampling	2012	0.004
Full-Shift Sample	-	Full-Shift Sampling	2012	0.0047
Full-Shift Sample	-	Full-Shift Sampling	2012	0.01
Full-Shift Sample	-	Full-Shift Sampling	2012	0.01
Full-Shift Sample	-	Full-Shift Sampling	2012	<0.03

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Asbestos Exposure Data - Sorted In Chronological Order

(Short-Term Limit = 1 f/cc; Full-Shift Limit = 0.1 f/cc)

Sample Type	Process Stage	Task	Date	Sample Result
Full-Shift Sample	-	Full-Shift Sampling	2012	<0.0023
Full-Shift Sample	-	Full-Shift Sampling	2012	0.0032
Full-Shift Sample	-	Full-Shift Sampling	2012	<0.0042
Full-Shift Sample	-	Full-Shift Sampling	2012	<0.005
Full-Shift Sample	-	Full-Shift Sampling	2012	0.004
Full-Shift Sample	-	Full-Shift Sampling	2012	0.02
Full-Shift Sample	-	Full-Shift Sampling	2012	0.01
Full-Shift Sample	-	Full-Shift Sampling	2012	0.01
Full-Shift Sample	-	Full-Shift Sampling	2012	0.02
Full-Shift Sample	-	Full-Shift Sampling	2012	0.01
Full-Shift Sample	-	Full-Shift Sampling	2012	<0.0065
Full-Shift Sample	-	Full-Shift Sampling	2012	<0.0065
Full-Shift Sample	-	Full-Shift Sampling	2012	<0.0056
Full-Shift Sample	-	Full-Shift Sampling	2012	<0.0056
Full-Shift Sample	-	Full-Shift Sampling	2012	<0.0057
Full-Shift Sample	-	Full-Shift Sampling	2012	<0.0058
Full-Shift Sample	-	Full-Shift Sampling	2012	<0.0043
Full-Shift Sample	-	Full-Shift Sampling	2012	0.0046
Full-Shift Sample	-	Full-Shift Sampling	2013	0.021
Full-Shift Sample	-	Full-Shift Sampling	2013	<0.006
Full-Shift Sample	-	Full-Shift Sampling	2013	<0.0061
Full-Shift Sample	-	Full-Shift Sampling	2013	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2013	0.01
Full-Shift Sample	-	Full-Shift Sampling	2013	0.011
Full-Shift Sample	-	Full-Shift Sampling	2013	0.01
Full-Shift Sample	-	Full-Shift Sampling	2013	0.011
Full-Shift Sample	-	Full-Shift Sampling	2013	0.02
Full-Shift Sample	-	Full-Shift Sampling	2013	<0.005
Full-Shift Sample	-	Full-Shift Sampling	2013	<0.005
Full-Shift Sample	-	Full-Shift Sampling	2013	0.0028
Full-Shift Sample	-	Full-Shift Sampling	2013	<0.0057
Full-Shift Sample	-	Full-Shift Sampling	2013	<0.0058
Full-Shift Sample	-	Full-Shift Sampling	2013	0.003
Full-Shift Sample	-	Full-Shift Sampling	2013	<0.0062
Full-Shift Sample	-	Full-Shift Sampling	2013	<0.0062
Full-Shift Sample	-	Full-Shift Sampling	2013	0.01
Full-Shift Sample	-	Full-Shift Sampling	2013	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2013	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2013	0.01
Full-Shift Sample	-	Full-Shift Sampling	2013	0.01
Full-Shift Sample	-	Full-Shift Sampling	2013	0.003
Full-Shift Sample	-	Full-Shift Sampling	2013	<0.004

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Asbestos Exposure Data - Sorted In Chronological Order

(Short-Term Limit = 1 f/cc; Full-Shift Limit = 0.1 f/cc)

Sample Type	Process Stage	Task	Date	Sample Result
Full-Shift Sample	-	Full-Shift Sampling	2013	<0.004
Full-Shift Sample	-	Full-Shift Sampling	2013	<0.004
Full-Shift Sample	-	Full-Shift Sampling	2013	<0.004
Full-Shift Sample	-	Full-Shift Sampling	2013	0.0046
Full-Shift Sample	-	Full-Shift Sampling	2013	<0.01
Full-Shift Sample	-	Full-Shift Sampling	2013	0.01
Full-Shift Sample	-	Full-Shift Sampling	2014	<0.004
Full-Shift Sample	-	Full-Shift Sampling	2014	<0.005
Full-Shift Sample	-	Full-Shift Sampling	2014	0.05
Full-Shift Sample	-	Full-Shift Sampling	2014	<0.0022
Full-Shift Sample	-	Full-Shift Sampling	2014	0.03
Full-Shift Sample	-	Full-Shift Sampling	2014	0.0038
Full-Shift Sample	-	Full-Shift Sampling	2014	0.0045
Full-Shift Sample	-	Full-Shift Sampling	2014	0.0059
Full-Shift Sample	-	Full-Shift Sampling	2014	0.0024
Full-Shift Sample	-	Full-Shift Sampling	2014	<0.0044
Full-Shift Sample	-	Full-Shift Sampling	2014	<0.0046
Full-Shift Sample	-	Full-Shift Sampling	2014	<0.0047
Full-Shift Sample	-	Full-Shift Sampling	2014	<0.0053
Full-Shift Sample	-	Full-Shift Sampling	2014	<0.055
Full-Shift Sample	-	Full-Shift Sampling	2014	<0.0049
Full-Shift Sample	-	Full-Shift Sampling	2014	<0.0057
Full-Shift Sample	-	Full-Shift Sampling	2014	<0.074
Full-Shift Sample	-	Full-Shift Sampling	2014	<0.0032
Full-Shift Sample	-	Full-Shift Sampling	2014	0.0068
Full-Shift Sample	-	Full-Shift Sampling	2014	0.023
Full-Shift Sample	-	Full-Shift Sampling	2014	0.0072
Full-Shift Sample	-	Full-Shift Sampling	2014	0.01
Full-Shift Sample	-	Full-Shift Sampling	2014	<0.0031
Full-Shift Sample	-	Full-Shift Sampling	2014	0.0059
Full-Shift Sample	-	Full-Shift Sampling	2014	0.0812
Full-Shift Sample	-	Full-Shift Sampling	2014	0.0049
Full-Shift Sample	-	Full-Shift Sampling	2014	0.0047
Full-Shift Sample	-	Full-Shift Sampling	2014	0.0039
Full-Shift Sample	-	Full-Shift Sampling	2014	0.018
Full-Shift Sample	-	Full-Shift Sampling	2014	<0.004
Full-Shift Sample	-	Full-Shift Sampling	2014	<0.004
Full-Shift Sample	-	Full-Shift Sampling	2014	<0.0046
Full-Shift Sample	-	Full-Shift Sampling	2014	<0.0046
Full-Shift Sample	-	Full-Shift Sampling	2014	<0.067
Full-Shift Sample	-	Full-Shift Sampling	2015	<0.0047
Full-Shift Sample	-	Full-Shift Sampling	2015	<0.0047

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Asbestos Exposure Data - Sorted In Chronological Order

(Short-Term Limit = 1 f/cc; Full-Shift Limit = 0.1 f/cc)

Sample Type	Process Stage	Task	Date	Sample Result
Full-Shift Sample	-	Full-Shift Sampling	2015	0.11
Full-Shift Sample	-	Full-Shift Sampling	2015	<0.0017
Full-Shift Sample	-	Full-Shift Sampling	2015	0.0048
Full-Shift Sample	-	Full-Shift Sampling	2015	0.03
Full-Shift Sample	-	Full-Shift Sampling	2015	<0.0033
Full-Shift Sample	-	Full-Shift Sampling	2015	<0.0034
Full-Shift Sample	-	Full-Shift Sampling	2015	0.036
Full-Shift Sample	-	Full-Shift Sampling	2015	<0.0034
Full-Shift Sample	-	Full-Shift Sampling	2015	0.0034
Full-Shift Sample	-	Full-Shift Sampling	2015	0.009
Full-Shift Sample	-	Full-Shift Sampling	2015	0.0029
Full-Shift Sample	-	Full-Shift Sampling	2015	<0.0034
Full-Shift Sample	-	Full-Shift Sampling	2015	<0.0034
Full-Shift Sample	-	Full-Shift Sampling	2015	0.052
Full-Shift Sample	-	Full-Shift Sampling	2015	<0.0043
Full-Shift Sample	-	Full-Shift Sampling	2015	<0.0045
Full-Shift Sample	-	Full-Shift Sampling	2015	<0.0055
Full-Shift Sample	-	Full-Shift Sampling	2015	<0.0056
Full-Shift Sample	-	Full-Shift Sampling	2015	<0.0016
Full-Shift Sample	-	Full-Shift Sampling	2015	<0.0018
Full-Shift Sample	-	Full-Shift Sampling	2015	<0.004
Full-Shift Sample	-	Full-Shift Sampling	2015	<0.005
Full-Shift Sample	-	Full-Shift Sampling	2015	<0.0024
Full-Shift Sample	-	Full-Shift Sampling	2015	0.0063
Full-Shift Sample	-	Full-Shift Sampling	2015	<0.016
Full-Shift Sample	-	Full-Shift Sampling	2016	<0.0016
Full-Shift Sample	-	Full-Shift Sampling	2016	<0.0018
Full-Shift Sample	-	Full-Shift Sampling	2016	0.0022
Full-Shift Sample	-	Full-Shift Sampling	2016	0.072
Full-Shift Sample	-	Full-Shift Sampling	2016	0.0044
Full-Shift Sample	-	Full-Shift Sampling	2016	<0.0024